

AMENDMENTS TO THE CLAIMS

1-24. (Cancelled)

25. (New) A support system for catalyst gauzes in an ammonia oxidation burner, comprising:

ceramic fillings arranged so as to support the catalyst gauzes, the ceramic fillings being contained in a burner basket having metal walls and a perforated bottom plate; and

a wave breaker arranged in the ceramic fillings, the wave breaker being fixed to at least one of an outer periphery of the bottom plate and one of the metal walls.

26. (New) A support system according to claim 25, wherein the wave breaker is filled with the at least one of ceramic fillings, Raschig rings, ceramic rings, ceramic catalyst materials and particulate ceramic material, so as to obtain a same flow resistance as the ceramic fillings in the burner basket.

27. (New) A support system according to claim 25, wherein the wave breaker is a triangular shaped ridge.

28. (New) A support system according to claim 27, wherein the ridge is made of segments.

29. (New) A support system according to claim 28, wherein the segments of the ridge have end walls.

30. (New) A support system according to claim 25, wherein the wave breaker is a smooth or perforated sheet arranged at an angle of 10-60° relative to an adjacent one of the walls.

31. (New) A support system according to claim 30, wherein the angle is 25-35°.

32. (New) A support system according to claim 31, wherein the sheet is made of segments.

33. (New) A support system according to claim 32, wherein the segments of the sheet have end walls.

34. (New) A support system according to claim 30, wherein the sheet is made of segments.

35. (New) A support system according to claim 34, wherein the segments of the sheet have end walls.

36. (New) A support system according to claim 25, wherein the wave breaker is a honeycomb structure.

37. (New) A support system according to claim 36, wherein the honeycomb structure has a sloping top.

38. (New) A support system according to claim 25, wherein the wave breaker is arranged so as to be completely covered by the ceramic fillings.

39. (New) A support system according to claim 25, wherein the ceramic fillings include a ceramic catalyst.

40. (New) A support system according to claim 25, wherein the catalyst gauzes include support screens.

41. (New) A method of reducing movement of ceramic material and avoiding tearing of catalyst gauzes in an ammonia oxidation burner, the method comprising:

supporting the catalyst gauzes with ceramic fillings contained in a burner basket having metal walls and a perforated bottom plate; and

arranging a wave breaker in the ceramic fillings and fixing the wave breaker to at least one of an outer periphery of the bottom plate and one of the metal walls of the burner basket.

42. (New) The method according to claim 41, wherein the wave breaker is one of a triangular shaped ridge, a smooth sheet, a perforated sheet and a honeycomb structure.

43. (New) The method according to claim 41, wherein the ceramic fillings include a ceramic catalyst.

44. (New) The method according to claim 41, wherein the catalyst gauzes include support screens.